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**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 218**

**[Docket No. 200212-0055]**

**RIN 0648-BH28**

**Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to U.S.**

**Navy Construction Activities at Naval Weapons Station Seal Beach, California**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS, upon request of the U.S. Navy (Navy), hereby issues regulations to govern the unintentional taking of marine mammals incidental to conducting construction activities related to development of a new ammunition pier at Seal Beach, California, over the course of five years. These regulations, which allow for the issuance of Letters of Authorization (LOA) for the incidental take of marine mammals during the described activities and specified timeframes, prescribe the permissible methods of taking and other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat, as well as requirements pertaining to the monitoring and reporting of such taking.

**DATES:** Effective from March 25, 2020, through March 25, 2025.

**ADDRESSES:** A copy of the Navy's application and supporting documents, as well as a list of the references cited in this document, may be obtained online at:

[www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-construction-ammunition-](https://www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-construction-ammunition-)

*pier-and-turning-basin-naval*. In case of problems accessing these documents, please call the contact listed below.

**FOR FURTHER INFORMATION CONTACT:** Ben Laws, Office of Protected Resources, NMFS, (301) 427-8401.

**SUPPLEMENTARY INFORMATION:**

**Purpose and Need for Regulatory Action**

We received an application from the Navy requesting five-year regulations and authorization to take multiple species of marine mammals. This rule establishes a framework under the authority of the MMPA (16 U.S.C. 1361 *et seq.*) to allow for the authorization of take by Level B harassment of marine mammals incidental to the Navy's construction activities related to development of a new ammunition pier at Seal Beach, California, including impact and vibratory pile driving. Please see "Background" below for definitions of harassment.

*Legal Authority for the Proposed Action*

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1371(a)(5)(A)) directs the Secretary of Commerce to allow, upon request, the incidental, but not intentional taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region for up to five years if, after notice and public comment, the agency makes certain findings and issues regulations that set forth permissible methods of taking pursuant to that activity and other means of effecting the "least practicable adverse impact" on the affected species or stocks and their habitat (see the discussion below in the "Mitigation" section), as well as monitoring and reporting requirements. Section 101(a)(5)(A) of the MMPA and the implementing regulations at 50 CFR part 216, subpart I provide the legal basis for issuing this final rule containing five-year regulations, and for any

subsequent LOAs. As directed by this legal authority, this rule contains mitigation, monitoring, and reporting requirements.

#### *Summary of Major Provisions within the Final Rule*

Following is a summary of the major provisions of this rule regarding Navy construction activities. These measures include:

- Required monitoring of the construction areas to detect the presence of marine mammals before beginning construction activities;
- Shutdown of construction activities under certain circumstances to avoid injury of marine mammals; and
- Soft start for impact pile driving to allow marine mammals the opportunity to leave the area prior to beginning impact pile driving at full power.

#### **Background**

The MMPA prohibits the “take” of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed incidental take authorization may be provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other “means of

effecting the least practicable adverse impact” on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stocks for taking for certain subsistence uses (referred to as “mitigation”); and requirements pertaining to the mitigation, monitoring and reporting of the takings are set forth.

The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

### **Summary of Request**

On September 10, 2019, we received an adequate and complete request from the Navy requesting authorization for take of marine mammals incidental to construction activities related to development of a new ammunition pier at Seal Beach, California. On September 17, 2019 (84 FR 48914), we published a notice of receipt of the Navy’s application in the **Federal Register**, requesting comments and information related to the request for 30 days. Our consideration of the Navy’s request was informed by review by the Marine Mammal Commission, and the Navy submitted a revised, final version of the application on November 26, 2019. No formal comments were received during the public review period. We subsequently published a Notice of Proposed Rulemaking in the **Federal Register** on December 10, 2019 (84 FR 67404). Comments received during the public comment period on the proposed regulations are addressed in “Comments and Responses.”

The Navy plans to conduct construction necessary for development of a new ammunition pier at Naval Weapons Station (NWS) Seal Beach, California. Construction activities include construction of a new pile-supported pier, construction of a new breakwater and causeway, dredging of the turning basin and creation of a new navigation channel for public access,

installation of new moorings and pile-supported mooring dolphins, and demolition of existing facilities. Among other activities, construction would include use of impact and vibratory pile driving, including installation and removal of steel, concrete, and timber piles. Hereafter (unless otherwise specified or detailed) we use the term “pile driving” to refer to both pile installation and pile removal. The use of both vibratory and impact pile driving is expected to produce underwater sound at levels that have the potential to result in harassment of marine mammals.

The Navy requests authorization to take individuals of five species by Level B harassment. These regulations are valid for five years (2020-2025).

### **Description of the Specified Activity**

#### *Overview*

NWS Seal Beach is the U.S. Pacific Fleet’s primary weapons station on the West Coast of the United States. As such, NWS Seal Beach has three primary missions: storage of Navy and Marine Corps ammunition, missile systems maintenance, and loading and unloading of Navy warships and larger Coast Guard vessels. The existing wharf at NWS Seal Beach is past its design life—over 65 years old—and was constructed prior to the introduction of modern seismic codes. Seismic design deficiencies are of significant concern due to the proximity to active faults and high liquefaction potential of underlying soils. The current condition and configuration of the existing pier and turning basin limits the size and number of ships that can be loaded and unloaded with ammunition at the same time and presents safety and security concerns due to the proximity of naval munitions operations to civilian small boat traffic and the Pacific Coast Highway. Therefore, the planned construction activities are necessary to sustain and enhance mission capability by eliminating deficiencies associated with the condition, configuration, and capacity of the existing pier and turning basin.

In-water pile driving work is expected to require approximately three years, but could occur at any time during the five-year period of validity of these regulations. The Navy estimates installing approximately 900 primarily concrete piles in total in order to construct the new pier. Construction will include use of impact and vibratory pile driving. Aspects of construction activities other than pile driving are not anticipated to have the potential to result in incidental take of marine mammals because they are either above water or do not produce levels of underwater sound with likely potential to result in marine mammal disturbance.

#### *Dates and Duration*

These regulations are valid for a period of five years (2020-2025). The specified activities may occur at any time during the five-year period of validity of the regulations. Pile driving activity would be completed over an approximately three-year period that is not necessarily consecutive during the five-year period of validity of these regulations.

Pile driving would typically occur only from Monday through Friday during typical working hours (*i.e.*, during daylight hours). Estimated days of pile driving are based on a conservative production rate of approximately three piles per day for installation of 922 piles, *i.e.*, 308 days. An additional 28 days is assumed for removal of piles. Therefore, the estimated number of total pile driving days is approximately 336 over the 5-year period. These totals include both extraction and installation of piles, and represent a conservative estimate of pile driving days. In a real construction situation, pile driving production rates would be maximized when possible and actual daily production rates may be higher, resulting in fewer actual pile driving days.

#### *Specified Geographical Region*

Construction activities at NWS Seal Beach will be located within Orange County, California, adjacent to the Port of Long Beach. The City of Seal Beach is situated between the Cities of Long Beach to the west and Huntington Beach to the east (see Figure 1-1 in the Navy's application). The specific site of the proposed construction activities is within Anaheim Bay, a small harbor that is completely enclosed by two jetties and land, aside from a narrow entrance channel (see Figure 1-2 of the Navy's application). For additional detail regarding the specified geographical region, please see our Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019) and Section 2 of the Navy's application.

#### *Detailed Description of Activities*

As described above, the Navy requested incidental take regulations for construction activities associated with development of a new ammunition pier at NWS Seal Beach, California. The entire project would include potential upgrades to the existing wharf to remain operational while the new pier is being built, the construction of a breakwater to reduce wave heights at the pier, a causeway, pile-supported mooring dolphins, a navigation channel for public boat access into and out of Huntington Harbor, dredging for the pier and Navy ship turning basin, and operational support buildings on and near the pier. Aspects of construction activities other than pile driving are not anticipated to have the potential to result in incidental take of marine mammals because they are either above water or do not produce levels of underwater sound with likely potential to result in marine mammal disturbance. A detailed description of the Navy's planned activities was provided in our Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019) and is not repeated here. No changes have been made to the specified activities described therein.

In-water pile driving activities with the potential to cause take of marine mammals include removal of existing navigation piles, installation of mooring anchors, and installation of piles required for the new ammunition pier. Only pile extraction and installation using vibratory and impact pile drivers is expected to have the potential to result in incidental take of marine mammals. Therefore, only vibratory and impact pile driving are carried forward for further analysis. Please see Table 1-1 of the Navy's application for a summary of piles to be installed and/or removed. The navigation piles that currently guide public vessel traffic, consisting of two timber pile clusters (dolphins) of approximately 8 to 10 piles each plus three additional single steel pipe piles, would be removed. All piles are approximately 24-inch (in) (61-centimeter (cm)) diameter. Timber piles are likely to be removed by cutting at the mudline, while the three steel piles would be extracted using the vibratory driver. However, it is possible that some timber piles may need to be removed using vibratory extraction. Therefore, we assume for purposes of analysis that all piles will be removed using vibratory extraction.

The planned indicator pile program would involve impact driving 17 24-in octagonal concrete piles in order to verify the driving conditions and establish the final driving lengths prior to fabrication of the final production piles that would be used to construct the new pier.

The new pier itself would be pile-supported with a total of approximately 900 piles (concrete and concrete-filled fiberglass) of various sizes connected to a cast-in-place concrete deck and beams. The majority of these production piles are expected to be jetted to within 1.5-3 meters (m) of tip elevation and then completed via impact driving. Piles are expected to largely be 24-in octagonal or square.

There will be a total of five new moorings installed, with two of those moorings outside of the new breakwater. Use of a vibratory hammer is required to install "plate anchors" that



provide permanent secure holdings for planned mooring buoys. Plate anchors consist of a steel plate that is driven to project depth (9-12 m) beneath the seafloor. The anchor is driven by use of a 12-in (30-cm) steel beam called a “follower.” The follower is slotted on the bottom, fits into the plate anchor, and together the assembly consisting of the plate anchor and follower are driven into the substrate. Once the assembly has been driven to the required depth using a combination of impact and vibratory driving, the follower is removed using vibratory extraction, leaving the plate anchor at the required depth. First, the plate anchor is driven with a vibratory hammer to within several feet of final depth (maximum driving time approximately 45 minutes). An impact hammer is then used to drive the plate anchor to final elevation (potentially requiring up to an additional 45 minutes). Finally, the follower is extracted using a vibratory hammer (up to a maximum of 30 minutes).

### **Comments and Responses**

We published a Notice of Proposed Rulemaking in the **Federal Register** on December 10, 2019 (84 FR 67404). During the 30-day comment period, we received a letter from the Marine Mammal Commission (Commission). The comments and our responses are described below. For full detail of the comments and recommendations, please see the comment letter, which is available online at: [www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-construction-ammunition-pier-and-turning-basin-naval](http://www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-construction-ammunition-pier-and-turning-basin-naval).

*Comment:* To better account for the number of cetaceans that have the potential to occur within the Level B harassment zones and to minimize unnecessary delays in completing the activities should the authorized takes be met, the Commission recommends that NMFS increase the numbers of cetacean takes in the final rule.

*Response:* We concur with the recommendation and have increased the take numbers for authorization as suggested by the Commission. Please see “Changes from Proposed to Final Regulations” below for a description of the change and Table 6 for revised take numbers.

*Comment:* The Commission recommends that NMFS include in the final rule certain requirements that the Commission deems “standard.” Specifically, the Commission recommends that we include requirements that the Navy (1) conduct pile-driving and -removal activities during daylight hours only and (2) if the entire shut-down zone(s) is not visible due to darkness, fog, or heavy rain, delay or cease pile-driving and -removal activities until the zone(s) is visible and, separately, a requirement to delay or cease pile-driving and -removal activities, if a species for which take has not been authorized or for which the authorized number of takes has been met is observed approaching or within the Level B harassment zone.

*Response:* We do not fully concur with the Commission’s recommendations, or with their underlying justification, and do not adopt them as stated. However, we do clarify in the final regulatory text that the required shutdown zones must remain visible during impact pile driving, though this need not preclude pile driving at night with sufficient illumination. While the Navy has no intention of conducting pile driving activities at night, it is unnecessary to preclude such activity should the need arise (e.g., on an emergency basis or to complete driving of a pile begun during daylight hours, should the construction operator deem it necessary to do so). Further, while acknowledging that prescribed mitigation measures for any specific action (and an associated determination that the prescribed measures are sufficient to achieve the least practicable adverse impact on the affected species or stocks and their habitat) are subject to review by the Commission and the public, any determination of what measures constitute “standard” mitigation requirements is NMFS’ alone to make. Even in the context of measures

that NMFS considers to be “standard” we reserve the flexibility to deviate from such measures, depending on the circumstances of the action. We disagree with the statement that a prohibition on pile driving activity outside of daylight hours is necessary to meet the MMPA’s least practicable adverse impact standard, and with the apparent premise that such a prohibition is necessary to preclude unauthorized taking by Level A harassment. As the Commission is aware, the mere appearance of an animal within a shutdown zone does not indicate that onset of auditory injury (i.e., Level A harassment) has occurred, as the calculation of Level A harassment zones for pile driving activity (generally dictated by cumulative sound exposure level rather than peak pressure level) assumes that an animal has accumulated energy over some assumed duration (or been exposed at a given distance to some assumed number of pile strikes).

We similarly disagree with the need to explicitly articulate a requirement to delay or cease activities if a species for which take has not been authorized or for which the authorized number of takes has been met is observed approaching or within the Level B harassment zone. All authorizations state explicitly the species authorized for taking and the numbers, by type (e.g., Level A or B harassment), of take incidents authorized, while also explicitly stating that the authorization is limited to those species and numbers. Separately, all authorizations already contain the redundant admonition that any taking of a type more severe than authorized or exceeding the stated numbers is prohibited. Therefore, the Commission’s recommended language is doubly redundant.

*Comment:* The Commission recommends that NMFS (1) include in the preamble and any issued LOA the modeled extents of the Level B harassment zones for impact installation of 12-in piles and vibratory removal of the 12-in piles and 24-in steel pipe piles based on Table 6-4 in the application and (2) include in the preamble and regulatory text of the final rule a reporting

requirement to extrapolate the numbers of Level B harassment takes, not only to those portions of the Level B harassment zones that the PSOs are unable to monitor within Anaheim Bay during the various activities but also those portions outside the bay when the 12-in I-beams are removed.

*Response:* We concur with and adopt the recommendation to include the referenced modeled Level B harassment zones. Please see Table 5. We do not adopt the recommended reporting requirement. The Navy has committed to monitoring the extent of waters within Anaheim Bay (or the extent of the Level B harassment zone, when encompassing a smaller area within Anaheim Bay), so no extrapolation is necessary within that area. Regarding the suggestion that take is expected to occur within waters outside of Anaheim Bay and, therefore, extrapolation is necessary in order to estimate total take, we described in detail in the preamble to the proposed rule the basis for our assumption that no take would occur beyond the waters of Anaheim Bay. The Commission does not address this assumption in their letter.

As noted by the Commission, the modeled distance to the Level B harassment isopleths for vibratory driving of 12-in steel beams outside of the planned breakwater is approximately 1.5 kilometers (km), meaning that, depending on location within the outer waters of Anaheim Bay, such isopleths could extend as much as approximately 1 km outside of the Bay. However, this assumption ignores the realistic environmental context of this location. As we described in the preamble to the proposed rule, the Anaheim Bay entrance is located approximately 8 km from the Ports of Los Angeles/Long Beach, which together form one of the busiest container ports in the world, and is situated between the entrances to the Huntington Beach and Alamitos/Long Beach marinas, which together have more than 2,000 boat slips. Additionally, an offshore petroleum extraction platform is located approximately 1.4 km offshore from the Anaheim Bay

entrance. Although appropriate background noise measurements are not available for the immediate vicinity of the Anaheim Bay entrance, it is likely that, at times, the noise from this vibratory driving activity may not exceed the level of extant background noise. Moreover, given the narrow entrance to jetty-enclosed Anaheim Bay, only a narrow strip of ensonified area could potentially extend beyond that entrance. When coupled with the short duration of this specific activity component (less than two hours per day for two days), there is a very low likelihood that any animal could be exposed to this noise. Finally, and most importantly, considering the thousands of ship transits passing nearby per year, near-constant activity of pilot vessels, tug boats, and recreational vessels, and noise from moored vessels and the production platform, we reasonably assume the noise environment in waters immediately adjacent to the Anaheim Bay entrance to be sufficiently loud that the addition of another, similar low-level industrial continuous noise source is not reasonably likely to cause an exposed animal to respond in a manner appropriately equated to “take,” as defined under the MMPA.

In summary, there is a very low likelihood that any animal could be exposed to noise exceeding the harassment threshold outside of Anaheim Bay and, in the event that such exposure occurred, we have determined it not reasonably likely that the exposed animal would respond in a way equivalent to harassment under the MMPA. Therefore, there is no need to estimate take that may occur outside of Anaheim Bay.

*Comment:* The Commission recommends that NMFS ensure that the Navy keeps a running tally of the total takes for each species to comply with the regulations.

*Response:* We agree that the Navy must ensure they do not exceed authorized takes. However, NMFS is not responsible for ensuring that the Navy does not operate in violation of an issued Letter of Authorization.

*Comment:* The Commission recommends that NMFS include in the final rule reporting requirements consistent with certain specific authorizations cited in their letter.

*Response:* We have revised the specific reporting language referenced by the Commission as recommended. Please see “Changes from Proposed to Final Regulations” below for a description of the change and “Monitoring and Reporting” for additional detail regarding these requirements.

### **Changes from Proposed to Final Regulations**

The only changes from the proposed to final regulations are those described in the responses to comments, including increases to certain authorized take numbers, clarification that impact pile driving must cease or be delayed if shutdown zone visibility is impaired, and minor revisions to descriptions of information that must be included in required reporting.

As recommended by the Commission, we have increased the annual numbers of cetacean takes from 220 to 336 for bottlenose dolphins, 336 to 454 for common dolphins, and 7 to 11 takes for gray whales in the final rule.

As recommended by the Commission, we have revised descriptions of information that must be included in required reporting. These requirements were described as follows in the proposed rule:

- Date and time that monitored activity begins or ends;
- Construction activities occurring during each observation period;
- Weather parameters (*e.g.*, wind speed, percent cloud cover, visibility);
- Water conditions (*e.g.*, sea state, tide state);
- Species, numbers, and, if possible, sex and age class of marine mammals;

- Description of any observable marine mammal behavior patterns, including bearing and direction of travel and distance from pile driving activity;
- Distance from pile driving activities to marine mammals and distance from the marine mammals to the observation point;
- Description of implementation of mitigation measures (*e.g.*, shutdown or delay);
- Locations of all marine mammal observations; and
- Other human activity in the area.

Descriptions of these requirements have been revised as follows:

- Dates and times (begin and end) of all marine mammal monitoring;
- Construction activities occurring during each daily observation period, including how many and what type of piles were driven or removed and by what method (*i.e.*, impact or vibratory);
- Weather parameters and water conditions during each monitoring period (*e.g.*, wind speed, percent cover, visibility, sea state);
- The number of marine mammals observed, by species, relative to the pile location and if pile driving or removal was occurring at time of sighting;
- Age and sex class, if possible, of all marine mammals observed;
- PSO locations during marine mammal monitoring;
- Distances and bearings of each marine mammal observed to the pile being driven or removed for each sighting (if pile driving or removal was occurring at time of sighting);
- Description of any marine mammal behavior patterns during observation, including direction of travel;

- Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimates of number of marine mammals taken, by species (a correction factor may be applied to total take numbers, as appropriate);
- Detailed information about any implementation of any mitigation triggered (e.g., shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any;
- Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals; and
- An extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible, when applicable.

### **Description of Marine Mammals in the Area of the Specified Activity**

We have reviewed the Navy's species descriptions—which summarize available information regarding status and trends, distribution and habitat preferences, behavior and life history, and auditory capabilities of the potentially affected species—for accuracy and completeness and refer the reader to Sections 3 and 4 of the Navy's application, instead of reprinting the information here. Additional information regarding population trends and threats may be found in NMFS's Stock Assessment Reports (SAR;

[www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments](http://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments)) and more general information about these species (e.g., physical and behavioral descriptions) may be found on NMFS's website ([www.fisheries.noaa.gov/find-species](http://www.fisheries.noaa.gov/find-species)).

Table 1 lists all species with expected potential for occurrence in the specified geographical region where the Navy proposes to conduct the specified activities and summarizes



information related to the population or stock, including regulatory status under the MMPA and Endangered Species Act (ESA) and potential biological removal (PBR), where known. For taxonomy, we follow Committee on Taxonomy (2019). PBR, defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population, is considered in concert with known sources of ongoing anthropogenic mortality (as described in NMFS's SARs).

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS's stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. All managed stocks in the specified geographical regions are assessed in NMFS's U.S. Pacific SARs. All values presented in Table 1 are the most recent available at the time of writing and are available in the 2018 SARs.

Five species (with six managed stocks) are considered to have the potential to be affected by Navy activities. A significantly more diverse marine mammal fauna occurs in deeper offshore waters of the specified geographical region. However, these additional species have not been observed in the vicinity of the action area and, for reasons described previously, are not anticipated to potentially be affected by the specified activity. For additional detail, please see section 3 of the Navy's application. We note that one additional species—the Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—has been observed in the vicinity of the entrance to Anaheim Bay. However, authorization of take for this species was not requested by the Navy due to their seasonal and generally rare occurrence in the area. In addition, the sea otter (*Enhydra*

*lutris*) is found in California coastal waters. However, sea otters are managed by the U.S. Fish and Wildlife Service and are not considered further in this document.

**Table 1 – Marine Mammals Potentially Affected By Navy Construction Activities**

Common name	Scientific name	Stock	ESA/MMPA status; Strategic (Y/N) <sup>1</sup>	Stock abundance (CV, N <sub>min</sub> , most recent abundance survey) <sup>2</sup>	PBR	Annual M/SI <sup>3</sup>
Order Cetartiodactyla – Cetacea – Superfamily Mysticeti (baleen whales)						
Family Eschrichtiidae						
Gray whale	<i>Eschrichtius robustus</i>	Eastern North Pacific	-; N	26,960 (0.05; 25,849; 2016)	801	139
Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae						
Common bottlenose dolphin	<i>Tursiops truncatus truncatus</i>	California Coastal	-; N	453 (0.06; 346; 2011)	2.7	≥2.0
ENP long-beaked common dolphin	<i>Delphinus delphis bairdii</i>	California	-; N	101,305 (0.49; 68,432; 2014)	657	≥35.4
Common dolphin	<i>D. d. delphis</i>	CA/OR/WA	-; N	969,861 (0.17; 839,325; 2014)	8,393	≥40
Order Carnivora – Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions)						
California sea lion	<i>Zalophus californianus</i>	United States	-; N	257,606 (n/a; 233,515; 2014)	14,011	≥321
Family Phocidae (earless seals)						
Harbor seal	<i>Phoca vitulina richardii</i>	California	-; N	30,968 (n/a; 27,348; 2012)	1,641	43

<sup>1</sup>Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

<sup>2</sup>NMFS marine mammal stock assessment reports at: [www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments](http://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments). CV is coefficient of variation; N<sub>min</sub> is the minimum estimate of stock abundance. In some cases, CV is not applicable. For certain stocks of pinnipeds, abundance estimates are based upon observations of animals (often pups) ashore multiplied by some correction factor derived from knowledge of the species' (or similar species') life history to arrive at a best abundance estimate; therefore, there is no associated CV. In these cases, the minimum abundance may represent actual counts of all animals ashore.

<sup>3</sup>These values, found in NMFS' SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (e.g., commercial fisheries, subsistence hunting, ship strike). Annual M/SI often cannot be determined precisely and is in some cases presented as a minimum value. All M/SI values are as presented in the 2018 SARs.

Marine mammals do not regularly use Anaheim Bay for any purpose, and there is no known habitat of any importance (including pinniped haul-outs) located within Anaheim Bay.

The Navy has conducted a semi-regular monitoring effort within Anaheim Bay over the past

several years. This monitoring effort is the primary source of information regarding marine mammal occurrence therein. Additional detail regarding the affected species and stocks, including local occurrence data, was provided in our Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019) and is not repeated here.

### *Marine Mammal Hearing*

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.*, Richardson *et al.*, 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.*, low-frequency cetaceans). NMFS (2018) describes generalized hearing ranges for these marine mammal hearing groups.

Generalized hearing ranges were chosen based on the approximately 65 dB threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. The functional groups and the associated frequencies are indicated below (note that these frequency ranges correspond to the range for the composite group, with the entire range not necessarily reflecting the capabilities of every species within that group):

- Low-frequency cetaceans (mysticetes): generalized hearing is estimated to occur between approximately 7 hertz (Hz) and 35 kilohertz (kHz);
- Mid-frequency cetaceans (larger toothed whales, beaked whales, and most delphinids): generalized hearing is estimated to occur between approximately 150 Hz and 160 kHz;
- High-frequency cetaceans (porpoises, river dolphins, and members of the genera *Kogia* and *Cephalorhynchus*; including two members of the genus *Lagenorhynchus*, on the basis of recent echolocation data and genetic data): generalized hearing is estimated to occur between approximately 275 Hz and 160 kHz;
- Pinnipeds in water; Phocidae (true seals): functional hearing is estimated to occur between approximately 50 Hz to 86 kHz; and
- Pinnipeds in water; Otariidae (eared seals): functional hearing is estimated to occur between 60 Hz and 39 kHz.

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information. Five marine mammal species (three cetacean and two pinniped (one otariid and one phocid) species) have the potential to co-occur with Navy construction activities. Please refer to Table 1. Of the three cetacean species that may be present, one is classified as a low-frequency cetacean (gray whale) and two are classified as mid-frequency cetaceans (dolphins).

### **Potential Effects of the Specified Activity on Marine Mammals and Their Habitat**

Sections 6 and 9 of the Navy's application include a comprehensive summary and discussion of the ways that components of the specified activity may impact marine mammals and their habitat, including specific discussion of potential effects to marine mammals from

noise produced through pile driving. We have reviewed the Navy’s discussion of potential effects for accuracy and completeness in its application and refer to that information rather than repeating it here. Alternatively, NMFS has included a lengthy discussion of the potential effects of noise on marine mammals, including specifically from pile driving, in numerous other **Federal Register** notices. Please see, *e.g.*, 83 FR 9366 (March 5, 2018); 84 FR 54867 (October 11, 2019); 82 FR 36360 (August 4, 2017), or view documents available online at [www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities](http://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities).

The “Estimated Take” section later in this document includes a quantitative analysis of the number of individuals that are expected to be taken by the specified activity. The “Negligible Impact Analysis and Determination” section includes an analysis of how these activities will impact marine mammals and considers the content of this section, the “Estimated Take” section, and the “Mitigation” section, to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and from that on the affected marine mammal populations. We also provided additional description of sound sources in our Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019).

### **Estimated Take**

This section provides an estimate of the number of incidental takes for authorization, which will inform both NMFS’s consideration of whether the number of takes is “small” and the negligible impact determination.

Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines “harassment” as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has

the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

Take of marine mammals incidental to Navy construction activities could occur as a result of Level B harassment only. Below we describe how the potential take is estimated.

#### *Acoustic Thresholds*

We provided discussion of relevant sound thresholds in our Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019) and do not repeat the information here. Generalized acoustic thresholds based on received level are used to estimate the onset of Level B harassment. These thresholds are 160 dB rms (intermittent sources) and 120 dB rms (continuous sources). Please see Table 2 for Level A harassment (auditory injury) criteria.

**Table 2 – Exposure Criteria for Auditory Injury**

Hearing Group	Peak pressure <sup>1</sup>	Cumulative sound exposure level <sup>2</sup>	
		Impulsive	Non-impulsive
Low-frequency cetaceans	219 dB	183 dB	199 dB
Mid-frequency cetaceans	230 dB	185 dB	198 dB
Phocid pinnipeds	218 dB	185 dB	201 dB
Otariid pinnipeds	232 dB	203 dB	219 dB

<sup>1</sup>Referenced to 1  $\mu$ Pa; unweighted within generalized hearing range.

<sup>2</sup>Referenced to 1  $\mu$ Pa<sup>2</sup>-s; weighted according to appropriate auditory weighting function.

#### *Zones of Ensonification*

*Sound Propagation* – We provided discussion of relevant propagation considerations in our Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019) and do not repeat the information here. As discussed in the proposed rule, site-specific propagation modeling was performed on behalf of the Navy by Dr. Peter Dahl (see “Modeling of Sound Propagation from

Pile Driving Marine Construction at Seal Beach,” available online at [www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-construction-ammunition-pier-and-turning-basin-naval](http://www.fisheries.noaa.gov/action/incidental-take-authorization-us-navy-construction-ammunition-pier-and-turning-basin-naval)). This modeling approach accounts for factors such as depth, substrate, and frequency-dependency, and was performed for propagation associated with impact driving of 24-in concrete piles and 12-in steel beams, and for vibratory driving of 30-in steel piles (as proxy for vibratory installation of 12-in steel beams and removal of 24-in steel piles). Propagation loss associated with vibratory removal of 24-in timber piles was not modeled, but rather represented through an assumption of practical spreading loss (4.5 dB reduction in sound level for each doubling of distance).

The above-referenced propagation analysis is provided for a more realistic understanding of actual ensonification effects at multiple specific locations within Anaheim Bay due to impact driving of concrete piles, impact and vibratory driving of steel beams, and vibratory driving of steel pipe piles. These actual zones are depicted in Figures 6-4 through 6-7 of the Navy’s application. This analysis indicates that, for vibratory installation of piles seaward of the intended breakwater, maximum Level B harassment isopleth distances would be less than 1.5 km. However, when accounting for the expected noise environment outside of Anaheim Bay, we assume that any sound above harassment thresholds that could propagate outside of the confines of Anaheim Bay would either not generally be discernible to marine mammals, or would not present a sufficiently great signal to noise ratio such that behavioral harassment would be the likely outcome. Therefore, we assume that potential incidental take of marine mammals resulting from the specified activity may occur only within Anaheim Bay. Assumed isopleth distances are given in Table 5.

*Sound Source Levels* – We provided discussion of source level considerations in our Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019) and do not repeat the information here. No changes have been made to the source level selections described in the proposed rule and shown in Table 3.

**Table 3 – Assumed Source Levels**

Method	Type	Size (in)	SPL (rms) <sup>1</sup>	SPL (peak) <sup>1</sup>	SEL <sup>1</sup>
Impact	Concrete	24	175	193	160
	Steel I-beam	12	181	194	171
Vibratory	Timber	24	152	n/a	n/a
	Steel I-beam	12	170	n/a	n/a
	Steel pipe	24	170	n/a	n/a

<sup>1</sup>Source levels presented at standard distance of 10 m from the driven pile. Peak source levels are not typically evaluated for vibratory pile driving, as they are lower than the relevant thresholds for auditory injury. SEL source levels for vibratory driving are equivalent to SPL (rms) source levels.

*Level A Harassment* – In order to assess the potential for injury on the basis of the cumulative SEL metric, one must estimate the total strikes (impact driving) or the total driving duration (vibratory driving) over which energy is assumed to accumulate. Table 4 presents an estimate of average strikes per day; average strikes per day and average daily duration values are used in the exposure analyses. Values given in Table 4 are engineering assumptions provided by the Navy.

**Table 4 – Estimated Daily Strikes and Driving Duration**

Pile type and method	Installation rate per day	Estimated duration	
		Average strikes/pile	Average daily duration
12-in steel; impact	1	390	n/a
24-in concrete; impact	3	667	n/a
12-in steel; vibratory	1	n/a	75 min
24-in timber; vibratory	1	n/a	60 min
24-in steel; vibratory	1	n/a	60 min

Delineation of potential injury zones on the basis of the peak pressure metric was performed using the SPL(peak) values provided in Table 3 above. Source levels for peak pressure are unweighted within the generalized hearing range, while SEL source levels are weighted according to the appropriate auditory weighting function. As discussed in detail in the



Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019), delineation of potential injury zones on the basis of the cumulative SEL metric for vibratory driving was performed using the NMFS User Spreadsheet. This relatively simple approach will typically result in higher predicted exposures for broadband sounds, since only one frequency is being considered, compared to exposures associated with the ability to fully incorporate the Technical Guidance's weighting functions. Note that, for use in delineating assumed Level A harassment zones through use of the User Spreadsheet, practical spreading was assumed, which is an additional conservative assumption.

In consideration of the assumptions relating to sound source levels, propagation, and pile driving rates, notional radial distances to relevant thresholds were calculated (Table 5). Please note that Table 5 in the proposed rule included calculated rather than modeled distances for certain piles. As recommended by the Commission, Table 5 is revised to include only the relevant modeled distances. However, these distances are sometimes constrained by topography. Actual notional ensonified zones, calculated using site-specific propagation modeling (Dahl, 2018) are shown in Figures 6-4 to 6-7 of the Navy's application. For production piles, these zones are modeled on the basis of a centrally-located, notional pile. Note that these figures assume the presence of the breakwater that will be constructed prior to pile driving activity.

**Table 5 – Assumed Distances to Level A and Level B Harassment Zones**

Pile	Driver	PW		OW		LF		MF		Level B <sup>1</sup>
		pk	cSEL	pk	cSEL	pk	cSEL	pk	cSEL	
24-in concrete	Impact	n/a	25	n/a	<10	n/a	46	n/a	<10	100
12-in steel	Impact	n/a	45	n/a	<10	n/a	85	n/a	<10	424-430 <sup>2</sup>
24-in steel	Vibratory	n/a	17	n/a	<10	n/a	27	n/a	<10	770
12-in steel	Vibratory	n/a	19	n/a	<10	n/a	32	n/a	<10	821-1,498 <sup>2</sup>
24-in timber	Vibratory	n/a	<10	n/a	<10	n/a	<10	n/a	<10	1,359

**Note:** PW=Phocid; OW=Otariid; LF=low frequency; MF=mid frequency; HF=high frequency; pk=peak pressure; cSEL=cumulative SEL

<sup>1</sup>Calculated free-field values only; topography constrains actual zones and all zones are assumed restricted to Anaheim Bay.

<sup>2</sup>Modeled distances are provided for specific notional pile locations. Therefore, a range is presented.

### *Exposure Estimates*

Available information regarding marine mammal occurrence at NWS Seal Beach, based on local observational effort, was summarized in the Notice of Proposed Rulemaking (84 FR 67404; December 10, 2019). Given the small area of Anaheim Bay, infrequent occurrence of marine mammals, and limited observational data available, we do not use these data to support calculation of density values, but rather use the maximum observed group size in conjunction with the expected days of pile driving to develop take estimates. The Navy assumes a total of 336 days of pile driving activity over the 5-year period of effectiveness of this proposed rule. However, the total days are assumed to occur over a three-year period during the five years. Therefore, the Navy assumes 112 pile driving days per year for 3 years.

To quantitatively assess exposure of marine mammals to noise from pile driving activities, the Navy used two methods. For pinniped species, which are assumed to have the potential to occur on any day of pile driving, the maximum group size is multiplied by the total annual pile driving days to generate the annual take estimate. For cetacean species, whose occurrence is assumed to be more sporadic in nature, the assumed group size is multiplied by an assumed proportion of total annual pile driving days. The assumed proportion reasonably reflects the observational data available for Anaheim Bay. This calculation is performed as: 112 annual pile driving days/5 days per week/4 weeks per month x assumed number of monthly days present. Given the small calculated Level A harassment zone sizes, we assume that no Level A harassment is likely to occur, for any species. The required mitigation measures further reduce the low likelihood that any incidents of Level A harassment would occur, and none may be authorized under these regulations.

*California Sea Lion* – California sea lions are regularly observed, typically as individuals or in pairs. However, a maximum group of six sea lions was observed in Anaheim Bay.

Therefore, the Navy estimates take as six sea lions per day for 112 days annually, yielding an estimate of 672 incidents of take annually and 2,016 incidents over the duration of the rule.

*Harbor Seal* – Individual harbor seals are infrequently observed in Anaheim Bay. However, as a relatively common coastal pinniped, the Navy assumes that one harbor seal could be present on each day of pile driving. Therefore, the Navy estimates take as 1 seal per day for 112 days annually, yielding an estimate of 112 incidents of take annually and 336 incidents over the duration of the rule.

*Bottlenose Dolphin* – The Navy assumes that groups of up to ten bottlenose dolphins may occur in Anaheim Bay on six occasions per month, yielding an annual estimate of 336 incidents of take, and 1,008 over the duration of the rule. Here we present an example calculation: 112 days of annual pile driving/5 days pile driving per week/4 weeks per month x 10 animals present on 6 days per month = 336 incidents of take per year. These dolphins are assumed to be from the California coastal stock of bottlenose dolphin.

*Common Dolphin* – The Navy assumes that groups of up to nine common dolphins may occur in Anaheim Bay on ten occasions per month, yielding an annual estimate of 454 incidents of take, and 1,361 over the duration of the rule. These dolphins could be from either the California/Oregon/Washington stock of common dolphin or from a subspecies stock, the eastern North Pacific long-beaked common dolphin.

*Gray Whale* – Individual gray whales have rarely been observed in the vicinity of the entrance to Anaheim Bay. The Navy assumes that a single gray whale may occur in Anaheim

Bay on two occasions per month, yielding an annual estimate of eleven incidents of take, and 34 over the duration of the rule.

The total numbers of take for authorization for all species is summarized in Table 6 below. These numbers were revised on the basis of comment from the Commission, as discussed in “Comments and Responses.” No authorization of take by Level A harassment is expected, nor may take by Level A harassment be authorized under the rule.

**Table 6 – Proposed Take Authorization by Level B Harassment**

Species	Annual	Total	Percent <sup>1</sup>
California sea lion	672	2,016	0.3
Harbor seal	112	336	0.4
Bottlenose dolphin	336	1,008	74.2
Common dolphin	454	1,361	<0.1/0.4
Gray whale	11	34	<0.1

<sup>1</sup>Reflects annual take number.

## **Mitigation**

Under Section 101(a)(5)(A) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (“least practicable adverse impact”). NMFS does not have a regulatory definition for “least practicable adverse impact.” However, NMFS’s implementing regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting such activity or other means of effecting the least practicable adverse impact upon the affected species or stocks and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, we carefully consider two primary factors:

(1) The manner in which, and the degree to which, implementation of the measure(s) is expected to reduce impacts to marine mammal species or stocks, their habitat, and their availability for subsistence uses. This analysis will consider such things as the nature of the potential adverse impact (such as likelihood, scope, and range), the likelihood that the measure will be effective if implemented, and the likelihood of successful implementation.

(2) The practicability of the measure for applicant implementation. Practicability of implementation may consider such things as cost, impact on operations, personnel safety, and practicality of implementation.

The mitigation strategies described below largely follow those required and successfully implemented under previous incidental take authorizations issued in association with similar construction activities. Estimated zones of influence (ZOI; see “Estimated Take”) were used to develop mitigation measures for pile driving activities. Background discussion related to underwater sound concepts and terminology is provided in the section on “Description of Sound Sources,” earlier in this preamble. The ZOIs were used to inform mitigation zones that would be established to prevent Level A harassment and to monitor Level B harassment.

In addition to the specific measures described later in this section, the Navy will conduct briefings for construction supervisors and crews, the marine mammal monitoring team, and Navy staff prior to the start of all pile driving activity, and when new personnel join the work, in order to explain responsibilities, communication procedures, the marine mammal monitoring protocol, and operational procedures.

### *Timing*

As described previously, the Navy will conduct construction activities only during daylight hours. This is a voluntary description by the Navy of expected construction scheduling that we do not treat as an absolute requirement. Therefore, this commitment is not considered in making our determinations and is not included in the regulatory text found at the end of this preamble.

### *Monitoring and Shutdown for Pile Driving*

The following measures would apply to the Navy's mitigation through shutdown and disturbance zones:

*Shutdown Zone* – The purpose of a shutdown zone is to define an area within which shutdown of activity would occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area), thus preventing some undesirable outcome, such as auditory injury or behavioral disturbance of sensitive species (serious injury or death are unlikely outcomes even in the absence of mitigation measures). For all pile driving activities, the Navy will establish a minimum shutdown zone with a radial distance of 10 m. This minimum zone is intended to prevent the already unlikely possibility of physical interaction with construction equipment and to establish a precautionary minimum zone with regard to acoustic effects.

In most cases, the minimum shutdown zone of 10 m is expected to contain the area in which auditory injury could occur. In all circumstances where the predicted Level A harassment zone exceeds the minimum zone, the Navy will implement a shutdown zone equal to the predicted Level A harassment zone (see Table 5). In all cases, predicted injury zones are calculated on the basis of cumulative sound exposure, as peak pressure source levels produce smaller predicted zones.

Injury zone predictions generated using the optional user spreadsheet are precautionary due to a number of simplifying assumptions. For example, the spreadsheet tool assumes that marine mammals remain stationary during the activity and does not account for potential recovery between intermittent sounds. In addition, the tool incorporates the acoustic guidance's weighting functions through use of a single-frequency weighting factor adjustment intended to represent the signal's 95 percent frequency contour percentile (*i.e.*, upper frequency below which 95 percent of total cumulative energy is contained; Charif *et al.*, 2010). This will typically result in higher predicted exposures for broadband sounds, because only one frequency is being considered, compared to exposures associated with the ability to fully incorporate the guidance's weighting functions.

*Disturbance Zone* – Disturbance zones are the areas in which sound pressure levels equal or exceed 160 and 120 dB rms (for impact and vibratory pile driving, respectively). Regarding vibratory driving occurring outside the breakwater, we assume that the disturbance zone is truncated at the entrance to Anaheim Bay. Disturbance zones provide utility for monitoring conducted for mitigation purposes (*i.e.*, shutdown zone monitoring) by establishing monitoring protocols for areas adjacent to the shutdown zones. Monitoring of disturbance zones enables observers to be aware of and communicate the presence of marine mammals in the project area but outside the shutdown zone, and thus prepare for potential shutdowns of activity. The primary purpose of disturbance zone monitoring is for documenting incidents of Level B harassment. Disturbance zone monitoring is discussed in greater detail later (see “Monitoring and Reporting”). Nominal radial distances for disturbance zones are shown in Table 5.

In order to document observed incidents of harassment, monitors record all marine mammal observations, regardless of location. The observer's location and the location of the pile

being driven are known, and the location of the animal may be estimated as a distance from the observer and then compared to the location from the pile. It may then be estimated whether the animal was exposed to sound levels constituting incidental harassment on the basis of predicted distances to relevant thresholds in post-processing of observational data, and a precise accounting of observed incidents of harassment created.

*Monitoring Protocols* – Monitoring will be conducted before, during, and after pile driving activities. In addition, observers will record all incidents of marine mammal occurrence, regardless of distance from activity, and monitors will document any behavioral reactions in concert with distance from piles being driven. Observations made outside the shutdown zone will not result in shutdown; that pile segment will be completed without cessation, unless the animal approaches or enters the shutdown zone, at which point all pile driving activities will be halted. Monitoring will take place from 30 minutes prior to initiation through 30 minutes post-completion of pile driving activities. Pile driving activities include the time to install or remove a single pile or series of piles, as long as the time elapsed between uses of the pile driving equipment is no more than 30 minutes.

The following additional measures apply to visual monitoring:

- (1) Monitoring will be conducted by qualified, trained protected species observers, who will be placed at the best vantage point(s) practicable (*i.e.*, construction barges, on shore, or any other suitable location) to monitor for marine mammals and implement shutdown/delay procedures when applicable by calling for the shutdown to the hammer operator. Observers will have no other construction-related tasks while conducting monitoring. Observers should have the following minimum qualifications:



- Visual acuity in both eyes (correction is permissible) sufficient for discernment of moving targets at the water's surface with ability to estimate target size and distance; use of binoculars may be necessary to correctly identify the target;
- Ability to conduct field observations and collect data according to assigned protocols;
- Experience or training in the field identification of marine mammals, including the identification of behaviors;
- Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
- Writing skills sufficient to document observations including, but not limited to: the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates and times when in-water construction activities were suspended to avoid potential incidental injury of marine mammals from construction noise within a defined shutdown zone; and marine mammal behavior; and
- Ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary.

Observer teams employed by the Navy in satisfaction of the mitigation and monitoring requirements described herein must meet the following additional requirements:

- Independent observers (*i.e.*, not construction personnel) are required.
- At least one observer must have prior experience working as an observer.
- Other observers may substitute education (degree in biological science or related field) or training for experience.

- Where a team of three or more observers are required, one observer should be designated as lead observer or monitoring coordinator. The lead observer must have prior experience working as an observer.

- We will require submission and approval of observer CVs.

(2) Prior to the start of pile driving activity, the shutdown zone will be monitored for 30 minutes to ensure that it is clear of marine mammals. Pile driving will only commence once observers have declared the shutdown zone clear of marine mammals; animals will be allowed to remain in the shutdown zone (*i.e.*, must leave of their own volition), and their behavior will be monitored and documented. The shutdown zone may only be declared clear, and pile driving started, when the entire shutdown zone is visible (*i.e.*, when not obscured by dark, rain, fog, *etc.*). In addition, if such conditions should arise during impact pile driving that is already underway, the activity would be halted, *i.e.*, the entire shutdown zone must remain visible during impact pile driving.

(3) If a marine mammal approaches or enters the shutdown zone during the course of pile driving operations, activity will be halted and delayed until either the animal has voluntarily left and been visually confirmed beyond the shutdown zone or fifteen minutes have passed without re-detection of the animal. Monitoring will be conducted throughout the time required to drive a pile and for thirty minutes following the conclusion of pile driving.

#### *Soft Start*

The use of a soft start procedure is believed to provide additional protection to marine mammals by warning marine mammals or providing them with a chance to leave the area prior to the hammer operating at full capacity, and typically involves a requirement to initiate sound from the hammer at reduced energy followed by a waiting period. This procedure is repeated two

additional times. It is difficult to specify the reduction in energy for any given hammer because of variation across drivers and, for impact hammers, the actual number of strikes at reduced energy will vary because operating the hammer at less than full power results in “bouncing” of the hammer as it strikes the pile, resulting in multiple “strikes.” The Navy will utilize soft start techniques for impact pile driving. We require an initial set of three strikes from the impact hammer at reduced energy, followed by a 30-second waiting period, then two subsequent 3-strike sets. Soft start will be required at the beginning of each day’s impact pile driving work and at any time following a cessation of impact pile driving of thirty minutes or longer; the requirement to implement soft start for impact driving is independent of whether vibratory driving has occurred within the prior 30 minutes.

We have carefully evaluated the Navy’s mitigation measures and considered a range of other measures in the context of ensuring that we prescribed the means of effecting the least practicable adverse impact on the affected marine mammal species and stocks and their habitat. Based on our evaluation of these measures, we have determined that the mitigation measures provide the means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for subsistence uses.

### **Monitoring and Reporting**

In order to issue an LOA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of the authorized taking. NMFS’s MMPA implementing regulations further describe the information that an applicant should provide when requesting an authorization (50 CFR 216.104(a)(13)), including

the means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and the level of taking or impacts on populations of marine mammals.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of significant interactions with marine mammal species in action area (*e.g.*, animals that came close to the vessel, contacted the gear, or are otherwise rare or displaying unusual behavior);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) action or environment (*e.g.*, source characterization, propagation, ambient noise); (2) affected species (*e.g.*, life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.*, age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (*e.g.*, marine mammal prey species, acoustic habitat, or important physical components of marine mammal habitat); and
- Mitigation and monitoring effectiveness.

#### *Visual Marine Mammal Observations*

The Navy will collect sighting data and behavioral responses to pile driving activity for marine mammal species observed in the region of activity during the period of activity. The

Navy will employ a minimum of two qualified observers at all times to monitor shutdown zones and the surrounding waters of Anaheim Bay. In order to accomplish visual coverage of the entirety of Anaheim Bay, it is possible that additional observers will be used. All observers will be trained in marine mammal identification and behaviors and are required to have no other construction-related tasks while conducting monitoring. The Navy will monitor all shutdown zones at all times, and would monitor disturbance zones as conditions allow. The Navy will conduct monitoring before, during, and after pile driving, with observers located at the best practicable vantage points.

As described in “Mitigation” and based on our requirements, the Navy will implement the following procedures for pile driving:

- Marine mammal observers will be located at the best vantage point(s) in order to properly see the entire shutdown zone and as much of the disturbance zone as possible;
- During all observation periods, observers will use binoculars and the naked eye to search continuously for marine mammals;
- If the shutdown zones are obscured by fog or poor lighting conditions, pile driving at that location will not be initiated until that zone is visible. Should such conditions arise while impact driving is underway, the activity will be halted; and
- The shutdown zone around the pile will be monitored for the presence of marine mammals before, during, and after all pile driving activity.

Individuals implementing the monitoring protocol will assess its effectiveness using an adaptive approach. Monitoring biologists will use their best professional judgment throughout implementation and seek improvements to these methods when deemed appropriate. Any modifications to the protocol will be coordinated between NMFS and the Navy.

## *Data Collection*

We require that observers use standardized data forms. Among other pieces of information, the Navy will record detailed information about any implementation of shutdowns, including the distance of animals to the pile and a description of specific actions that ensued and resulting behavior of the animal, if any. We require that, at a minimum, the following information be collected on the sighting forms:

- Dates and times (begin and end) of all marine mammal monitoring;
- Construction activities occurring during each daily observation period, including how many and what type of piles were driven or removed and by what method (*i.e.*, impact or vibratory);
- Weather parameters and water conditions during each monitoring period (*e.g.*, wind speed, percent cover, visibility, sea state);
- The number of marine mammals observed, by species, relative to the pile location and if pile driving or removal was occurring at time of sighting;
- Age and sex class, if possible, of all marine mammals observed;
- PSO locations during marine mammal monitoring;
- Distances and bearings of each marine mammal observed to the pile being driven or removed for each sighting (if pile driving or removal was occurring at time of sighting);
- Description of any marine mammal behavior patterns during observation, including direction of travel;
- Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimates of number of marine mammals taken, by species (a correction factor may be applied to total take numbers, as appropriate);

- Detailed information about any implementation of any mitigation triggered (e.g., shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any;
- Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals; and
- An extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible, when applicable.

### *Reporting*

A draft report must be submitted to NMFS within 90 days of the completion of each calendar year. The report will include marine mammal observations pre-activity, during-activity, and post-activity during pile driving days, and will also provide descriptions of any behavioral responses to construction activities by marine mammals and a complete description of all mitigation shutdowns and the results of those actions and a total take estimate based on the number of marine mammals observed during the course of construction. A final report must be submitted within 30 days following resolution of comments on the draft report. The Navy will also submit a comprehensive summary report covering all activities conducted under the incidental take regulations.

### *Reporting Injured or Dead Marine Mammals*

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the Navy shall report the incident to the Office of Protected Resources (OPR), NMFS and to the regional stranding coordinator as soon as feasible. The report must include the following information:

- Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- If available, photographs or video footage of the animal(s); and
- General circumstances under which the animal was discovered.

### **Negligible Impact Analysis and Determination**

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.*, population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be “taken” by mortality, serious injury, and Level A or Level B harassment, we consider other factors, such as the likely nature of any behavioral responses (*e.g.*, intensity, duration), the context of any such responses (*e.g.*, critical reproductive time or location, migration), as well as effects on habitat, and the likely effectiveness of mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS’s implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their



impacts on the environmental baseline (*e.g.*, as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality).

Pile driving activities associated with this construction action, as described previously, have the potential to disturb marine mammals. Specifically, the specified activities may result in take, in the form of Level B harassment (behavioral disturbance) only from underwater sounds generated from pile driving. Potential takes could occur if individual marine mammals are present in the ensonified zone when pile driving is happening.

No serious injury or mortality would be expected even in the absence of the required mitigation measures. No Level A harassment is anticipated given the nature of the activities, *i.e.*, much of the anticipated activity would involve vibratory driving and/or brief impact installation of primarily non-steel piles, and measures designed to minimize the possibility of injury. The limited potential for injury is expected to be essentially eliminated through implementation of the planned mitigation measures—soft start (for impact driving) and shutdown zones. Impact driving, as compared with vibratory driving, has source characteristics (short, sharp pulses with higher peak levels and much sharper rise time to reach those peaks) that are potentially injurious or more likely to produce severe behavioral reactions. Given sufficient notice through use of soft start, marine mammals are expected to move away from a sound source that is annoying prior to its becoming potentially injurious or resulting in more severe behavioral reactions.

Environmental conditions are expected to generally be good, with calm sea states, and we expect conditions would allow a high marine mammal detection capability, enabling a high rate of success in implementation of shutdowns to avoid injury.

Effects on individuals that are taken by Level B harassment, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions

such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring). Most likely, individuals will simply move away from the sound source and be temporarily displaced from the areas of pile driving, although even this reaction has been observed primarily only in association with impact pile driving. The pile driving activities analyzed here are similar to, or less impactful than, numerous other construction activities conducted in San Diego Bay, San Francisco Bay, and in the Puget Sound region, which have taken place with no known long-term adverse consequences from behavioral harassment.

The Navy has conducted multi-year activities potentially affecting marine mammals, and typically involving greater levels of activity and/or more impactful activities (*e.g.*, impact driving of steel piles) than is contemplated here, in various locations such as San Diego Bay as well as locations in Washington inland waters. Reporting from these activities has similarly reported no apparently consequential behavioral reactions or long-term effects on marine mammal populations. Repeated exposures of individuals to relatively low levels of sound outside of preferred habitat areas are unlikely to significantly disrupt critical behaviors. Thus, even repeated Level B harassment of some small subset of the overall stock is unlikely to result in any significant realized decrease in viability for the affected individuals, and thus would not result in any adverse impact to the stock as a whole. Level B harassment will be reduced to the level of least practicable adverse impact through use of mitigation measures described herein and, if sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the area while the activity is occurring. Effects of the specified activity are expected to be limited to the enclosed waters of Anaheim Bay, which provides relatively low-quality habitat and no known habitat areas of any importance. Therefore, we expect that animals annoyed by project sound would simply avoid the area and use more-preferred habitats.

In summary, this negligible impact analysis is founded on the following factors: (1) the possibility of serious injury or mortality may reasonably be considered discountable; (2) as a result of the nature of the activity in concert with the planned mitigation requirements, injury is not anticipated; (3) the anticipated incidents of Level B harassment consist of, at worst, temporary modifications in behavior; (4) the absence of any significant habitat within the project area, including known areas or features of special significance for foraging or reproduction; and (5) the presumed efficacy of the required mitigation measures in reducing the effects of the specified activity to the level of least practicable adverse impact.

In combination, we believe that these factors, as well as the available body of evidence from other similar activities, demonstrate that the potential effects of the specified activities will have only minor, short-term effects on individuals. The specified activities are not expected to impact rates of recruitment or survival and will therefore not result in population-level impacts.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the required monitoring and mitigation measures, we find that the total marine mammal take from the Navy's construction activities will have a negligible impact on the affected marine mammal species or stocks.

### **Small Numbers**

As noted above, only small numbers of incidental take may be authorized under Section 101(a)(5)(A) of the MMPA for specified activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine

mammals. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

Please see Table 6 for information relating to this small numbers analysis. We expect to authorize incidental take of five marine mammal species (with take of one species potentially occurring for two stocks). The total annual amount of taking for authorization is less than one percent for all stocks other than the California coastal bottlenose dolphin, for which the annual take represents greater than one-third of the best available population abundance, if we were to assume that all takes occurred to distinct individuals. However, these numbers represent the estimated incidents of take, not the number of individuals taken. That is, it is likely that a relatively small subset of California coastal bottlenose dolphins would be incidentally harassed by project activities. California coastal bottlenose dolphins range from San Francisco Bay to San Diego (and south into Mexico) and the specified activity would be stationary within an enclosed water body that is not recognized as an area of any special significance for coastal bottlenose dolphins (and is therefore not an area of dolphin aggregation, as evident in Navy observational records). We therefore believe that the estimated numbers of takes likely represent repeated exposures of a much smaller number of bottlenose dolphins and that, based on the limited region of exposure in comparison with the known distribution of the coastal bottlenose dolphin, these estimated incidents of take represent small numbers of bottlenose dolphins. Therefore, the annual take levels would be of small numbers for all stocks.

Based on the analysis contained herein of the specified activity (including the required mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the population sizes of the affected species or stocks.

## **Impact on Availability of Affected Species for Taking for Subsistence Uses**

There are no relevant subsistence uses of marine mammals implicated by these actions. Therefore, we have determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

## **Adaptive Management**

The regulations governing the take of marine mammals incidental to Navy construction activities contain an adaptive management component.

The reporting requirements associated with this rule are designed to provide NMFS with monitoring data from the previous year to allow consideration of whether any changes are appropriate. The use of adaptive management allows NMFS to consider new information from different sources to determine (with input from the Navy regarding practicability) on an annual or biennial basis if mitigation or monitoring measures should be modified (including additions or deletions). Mitigation measures could be modified if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable.

The following are some of the possible sources of applicable data to be considered through the adaptive management process: (1) results from monitoring reports, as required by MMPA authorizations; (2) results from general marine mammal and sound research; and (3) any information which reveals that marine mammals may have been taken in a manner, extent, or number not authorized by these regulations or subsequent LOAs.

## **Endangered Species Act (ESA)**

No marine mammal species listed under the ESA are expected to be affected by these

activities. Therefore, we have determined that section 7 consultation under the ESA is not required.

### **National Environmental Policy Act**

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216-6A, NMFS must evaluate our proposed action (*i.e.*, the promulgation of regulations and subsequent issuance of incidental take authorization) and alternatives with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 of the Companion Manual for NAO 216-6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has determined that the action qualifies to be categorically excluded from further NEPA review.

### **Classification**

Pursuant to the procedures established to implement Executive Order 12866, the Office of Management and Budget has determined that this rule is not significant.

Pursuant to section 605(b) of the Regulatory Flexibility Act (RFA), the Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration at the proposed rule stage that this action will not have a significant economic impact on a substantial number of small entities. Navy is the sole entity that would be subject to the requirements of these regulations, and the U.S. Navy is not a small governmental jurisdiction, small organization, or small business, as defined by the RFA. No comments were received regarding this certification. As a result, a regulatory flexibility analysis

is not required and none has been prepared.

This rule does not contain a collection-of-information requirement subject to the provisions of the Paperwork Reduction Act (PRA) because the applicant is a Federal agency.

### **List of Subjects in 50 CFR Part 218**

Exports, Fish, Imports, Indians, Labeling, Marine mammals, Penalties, Reporting and recordkeeping requirements, Seafood, Transportation.

Dated: February 13, 2020.

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Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs,

National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 218 is amended as follows:

### **PART 218 – REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS**

1. The authority citation for part 218 continues to read as follows:

**Authority:** 16 U.S.C. 1361 *et seq.*

2. Add subpart D to read as follows:

#### **Subpart D – Taking Marine Mammals Incidental to U.S. Navy Construction Activities at Naval Weapons Station Seal Beach, California**

Sec.

218.30 Specified activity and specified geographical region.

218.31 Effective dates.

218.32 Permissible methods of taking.  
218.33 Prohibitions.  
218.34 Mitigation requirements.  
218.35 Requirements for monitoring and reporting.  
218.36 Letters of Authorization.  
218.37 Renewals and modifications of Letters of Authorization.  
218.38 – 218.39 [Reserved]

**Subpart D – Taking Marine Mammals Incidental to U.S. Navy Construction Activities at  
Naval Weapons Station Seal Beach, California**

**§ 218.30 Specified activity and specified geographical region.**

(a) Regulations in this subpart apply only to the U.S. Navy (Navy) and those persons it authorizes or funds to conduct activities on its behalf for the taking of marine mammals that occurs in the areas outlined in paragraph (b) of this section and that occurs incidental to maintenance construction activities.

(b) The taking of marine mammals by the Navy may be authorized in a Letter of Authorization (LOA) only if it occurs within California coastal waters in the vicinity of Naval Weapons Station Seal Beach.

**§ 218.31 Effective dates.**

Regulations in this subpart are effective from March 25, 2020, through March 25, 2025.

**§ 218.32 Permissible methods of taking.**

Under LOAs issued pursuant to §§ 216.106 of this chapter and 218.36, the Holder of the LOA (hereinafter “Navy”) may incidentally, but not intentionally, take marine mammals within the area described in § 218.30(b) by Level B harassment associated with construction activities, provided the activity is in compliance with all terms, conditions, and requirements of the regulations in this subpart and the appropriate LOA.

**§ 218.33 Prohibitions.**



Notwithstanding takings contemplated in § 218.32 and authorized by an LOA issued under §§ 216.106 of this chapter and 218.36, no person in connection with the activities described in § 218.30 may:

(a) Violate, or fail to comply with, the terms, conditions, and requirements of this subpart or an LOA issued under §§ 216.106 of this chapter and 218.36;

(b) Take any marine mammal not specified in such LOAs;

(c) Take any marine mammal specified in such LOAs in any manner other than as specified;

(d) Take a marine mammal specified in such LOAs if NMFS determines such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(e) Take a marine mammal specified in such LOAs if NMFS determines such taking results in an unmitigable adverse impact on the species or stock of such marine mammal for taking for subsistence uses.

#### **§ 218.34 Mitigation requirements.**

When conducting the activities identified in § 218.30(a), the mitigation measures contained in any LOA issued under §§ 216.106 of this chapter and 218.36 must be implemented. These mitigation measures shall include but are not limited to:

(a) *General conditions.* (1) A copy of any issued LOA must be in the possession of the Navy, its designees, and work crew personnel operating under the authority of the issued LOA.

(2) The Navy shall conduct briefings for construction supervisors and crews, the monitoring team, and Navy staff prior to the start of all pile driving activity, and when new personnel join the work, in order to explain responsibilities, communication procedures, the marine mammal monitoring protocol, and operational procedures.

(b) *Shutdown zones.* (1) For all pile driving activity, the Navy shall implement a minimum shutdown zone of a 10 m radius around the pile. If a marine mammal comes within or approaches the shutdown zone, such operations shall cease.

(2) For all pile driving activity, the Navy shall implement shutdown zones with radial distances as identified in any LOA issued under §§ 216.106 of this chapter and 218.36. If a marine mammal comes within or approaches the shutdown zone, such operations shall cease.

(3) For all pile driving activity, the Navy shall designate monitoring zones with radial distances as identified in any LOA issued under §§ 216.106 of this chapter and 218.36.

(c) *Shutdown protocols.* (1) The Navy shall deploy marine mammal observers as described in § 218.35.

(2) For all pile driving activities, a minimum of one observer shall be stationed at the active pile driving rig or in reasonable proximity in order to monitor the shutdown zone.

(3) Monitoring shall take place from 30 minutes prior to initiation of pile driving activity through 30 minutes post-completion of pile driving activity. Pre-activity monitoring shall be conducted for 30 minutes to ensure that the shutdown zone is clear of marine mammals, and pile driving may commence when observers have declared the shutdown zone clear of marine mammals. In the event of a delay or shutdown of activity resulting from marine mammals in the shutdown zone, animals shall be allowed to remain in the shutdown zone (*i.e.*, must leave of their own volition) and their behavior shall be monitored and documented. Monitoring shall occur throughout the time required to drive a pile. A determination that the shutdown zone is clear must be made during a period of good visibility (*i.e.*, the entire shutdown zone and surrounding waters must be visible to the naked eye).

(4) If a marine mammal approaches or enters the shutdown zone, all pile driving

activities at that location shall be halted. If pile driving is halted or delayed due to the presence of a marine mammal, the activity may not commence or resume until either the animal has voluntarily left and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal.

(5) During conditions where the entire shutdown zone is not visible (e.g., dark, fog, heavy rain), impact pile driving must be delayed until the PSO is confident marine mammals within the shutdown zone could be detected.

(6) Monitoring shall be conducted by trained observers, who shall have no other assigned tasks during monitoring periods. Trained observers shall be placed at the best vantage point(s) practicable to monitor for marine mammals and implement shutdown or delay procedures when applicable through communication with the equipment operator. The Navy shall adhere to the following additional observer qualifications:

- (i) Independent observers (*i.e.*, not construction personnel) are required.
- (ii) At least one observer must have prior experience working as an observer.
- (iii) Other observers may substitute education (degree in biological science or related field) or training for experience.

- (iv) Where a team of three or more observers are required, one observer shall be designated as lead observer or monitoring coordinator. The lead observer must have prior experience working as an observer.

- (v) The Navy shall submit observer CVs for approval by NMFS.

- (d) *Soft start*. The Navy shall use soft start techniques for impact pile driving. Soft start for impact drivers requires contractors to provide an initial set of three strikes at reduced energy, followed by a thirty-second waiting period, then two subsequent reduced energy three-strike sets.

Soft start shall be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of thirty minutes or longer.

**§ 218.35 Requirements for monitoring and reporting.**

(a) Trained observers shall receive a general environmental awareness briefing conducted by Navy staff. At minimum, training shall include identification of marine mammals that may occur in the project vicinity and relevant mitigation and monitoring requirements. All observers shall have no other construction-related tasks while conducting monitoring.

(b) For shutdown zone monitoring, the Navy shall report on implementation of shutdown or delay procedures, including whether the procedures were not implemented and why (when relevant).

(c) The Navy shall deploy a minimum of one additional observer to aid in monitoring disturbance zones. This observer shall collect sighting data and behavioral responses to pile driving for marine mammal species observed in the region of activity during the period of activity, and shall communicate with the shutdown zone observer as appropriate with regard to the presence of marine mammals. All observers shall be trained in identification and reporting of marine mammal behaviors.

(d) The Navy must submit annual and summary reports.

(1) Navy shall submit an annual summary report to NMFS not later than 90 days following the end of each calendar year. Navy shall provide a final report within 30 days following resolution of comments on the draft report. These reports shall contain, at minimum, the following:

(i) Dates and times (begin and end) of all marine mammal monitoring;

(ii) Construction activities occurring during each daily observation period, including how

many and what type of piles were driven or removed and by what method (*i.e.*, impact or vibratory);

(iii) Weather parameters and water conditions during each monitoring period (*e.g.*, wind speed, percent cover, visibility, sea state);

(iv) The number of marine mammals observed, by species, relative to the pile location and if pile driving or removal was occurring at time of sighting;

(v) Age and sex class, if possible, of all marine mammals observed;

(vi) PSO locations during marine mammal monitoring;

(vii) Distances and bearings of each marine mammal observed to the pile being driven or removed for each sighting (if pile driving or removal was occurring at time of sighting);

(viii) Description of any marine mammal behavior patterns during observation, including direction of travel;

(ix) Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimates of number of marine mammals taken, by species (a correction factor may be applied to total take numbers, as appropriate);

(x) Detailed information about any implementation of any mitigation triggered (*e.g.*, shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any;

(xi) Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals; and,

(xii) An extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible, when applicable.

(2) Navy shall submit a comprehensive summary report to NMFS not later than ninety days following the conclusion of marine mammal monitoring efforts described in this subpart.

(e) Reporting of injured or dead marine mammals: In the event that personnel involved in the survey activities discover an injured or dead marine mammal, the LOA-holder must report the incident to the Office of Protected Resources (OPR), NMFS and to the West Coast Regional Stranding Network as soon as feasible. The report must include the following information:

(1) Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);

(2) Species identification (if known) or description of the animal(s) involved;

(3) Condition of the animal(s) (including carcass condition if the animal is dead);

(4) Observed behaviors of the animal(s), if alive;

(5) If available, photographs or video footage of the animal(s); and

(6) General circumstances under which the animal was discovered.

#### **§ 218.36 Letters of Authorization.**

(a) To incidentally take marine mammals pursuant to these regulations, the Navy must apply for and obtain an LOA.

(b) An LOA, unless suspended or revoked, may be effective for a period of time not to exceed the expiration date of these regulations.

(c) If an LOA expires prior to the expiration date of these regulations, the Navy may apply for and obtain a renewal of the LOA.

(d) In the event of projected changes to the activity or to mitigation and monitoring measures required by an LOA, the Navy must apply for and obtain a modification of the LOA as described in § 218.37.

(e) The LOA shall set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact (*i.e.*, mitigation) on the species, its habitat, and on the availability of the species for subsistence uses; and

(3) Requirements for monitoring and reporting.

(f) Issuance of the LOA shall be based on a determination that the level of taking will be consistent with the findings made for the total taking allowable under these regulations.

(g) Notice of issuance or denial of an LOA shall be published in the **Federal Register** within thirty days of a determination.

#### **§ 218.37 Renewals and modifications of Letters of Authorization.**

(a) An LOA issued under §§ 216.106 of this chapter and 218.36 for the activity identified in § 218.30(a) shall be renewed or modified upon request by the applicant, provided that:

(1) The proposed specified activity and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for these regulations (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section), and

(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA under these regulations were implemented.

(b) For LOA modification or renewal requests by the applicant that include changes to the activity or the mitigation, monitoring, or reporting (excluding changes made pursuant to the adaptive management provision in paragraph (c)(1) of this section) that do not change the findings made for the regulations or result in no more than a minor change in the total estimated number of takes (or distribution by species or years), NMFS may publish a notice of proposed

LOA in the **Federal Register**, including the associated analysis of the change, and solicit public comment before issuing the LOA.

(c) An LOA issued under §§ 216.106 of this chapter and 218.36 for the activity identified in § 218.30(a) may be modified by NMFS under the following circumstances:

(1) *Adaptive management* – NMFS may modify (including augment) the existing mitigation, monitoring, or reporting measures (after consulting with the Navy regarding the practicability of the modifications) if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring set forth in the preamble for these regulations.

(i) Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, or reporting measures in an LOA:

(A) Results from the Navy's monitoring from the previous year(s).

(B) Results from other marine mammal and/or sound research or studies.

(C) Any information that reveals marine mammals may have been taken in a manner, extent or number not authorized by these regulations or subsequent LOAs.

(ii) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS will publish a notice of proposed LOA in the **Federal Register** and solicit public comment.

(2) *Emergencies*. If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in LOAs issued pursuant to §§ 216.106 of this chapter and 218.36, an LOA may be modified without prior notice or opportunity for public comment. Notice would be published in the **Federal Register** within thirty days of the action.



**§§ 218.38-218.39 [Reserved]**

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